

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

I. CLAIM STATUS & AMENDMENTS

Claims 1-23 were pending in this application when last examined.

Claims 1-13 were rejected.

Claims 14-23 were withdrawn as non-elected subject matter.

Claims 1, 3-6 and 8-13 have been amended.

Support for the thickness of the tissue section (i.e., not to exceed 50 µm) added to claim 1 can be found in the specification, for example, at page 21, lines 6-11.

Support for the amendment to claim 1 to recite “for the culture of animal cells or plants cells” can be found in the specification, for example, at page 7, line 4.

Support for the limitation “wherein the tissue section is stuck to a support or stuck thereto while stretched” added to claim 1 can be found in the specification, for example, at pages 24-26 (Example 1) and original claim 2.

Support for the amendment to claims 3-13 to recite “tissue section-containing carrier” can be found in the specification, for example, at page 5, lines 17-24.

Support for the spelling correction in claim 5 can be found in original claim 5.

Support for the amendment to claim 9 to recite “wherein the tissue sections were obtained from frozen tissue, paraffin-embedded tissue, or resin-embedded tissue” can be found in the specification, for example, as page 19, lines 17-19 and in original claim 9

Support for the amendments to claims 12 and 13 to recite “wherein the tissue is obtained from an unborn animal living in its mother” and “wherein the tissue is obtained from a born animal” respectively, can be found in the specification, for example, in the 5th paragraph on page 3 and in original claims 12 and 13.

Therefore, no new matter has been added by this amendment.

Claims 2 and 7 have been canceled without prejudice or disclaimer thereto. Applicants reserve the right to file a continuation or divisional application on any canceled subject matter.

Claims 1, 3-6 and 8-23 are now pending in this application.

II. REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1-13 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite for the reasons set forth on pages 2-3 of the Office Action.

Applicants respectfully submit that the present amendment overcomes this rejection as applied to the amended claims for the following reasons.

Claims 2-13 have been amended such that their preamble is consistent with that in claim 1 as suggested by the Examiner. This change is consistent with the disclosure at page 5, lines 17-24, wherein the invention is described as a “tissue section-containing carrier.”

Claim 1 has been amended to include the structural elements of claim 2, thereby obviating the concern regarding a lack of structural elements in the claim.

Claim 7 has been canceled.

Claim 8 has been amended to delete the phrase “or the like”, thereby obviating the overcome the concern in the 2nd paragraph on page 3.

Claim 9 has been amended to recite “wherein the tissue sections were obtained from frozen tissue, paraffin-embedded tissue, or resin-embedded tissue” as disclosed at page 19, lines 17-19, thereby obviating the concern in the 3rd paragraph on page 3.

Claim 1 has been amended to provide antecedent basis for the “plants cells” in claim 10.

Claims 12 and 13 have been amended to recite “wherein the tissue is obtained from an unborn animal living in its mother” and “wherein the tissue is obtained from a born animal” respectively, to overcome the concern in the 5th paragraph on page 3.

Therefore, the rejection of claims 1-13 under 35 U.S.C. § 112, second paragraph, is untenable and should be withdrawn.

III. REJECTIONS UNDER 35 U.S.C. § 102(b)

A. Mori et al.

Claims 1-13 were rejected under 35 U.S.C. § 102(b), as anticipated by Mori et al., Anat. Embryol., Vol. 199, pp. 319-327 (1999). See page 4 of the Office Action.

This rejection is respectfully traversed as applied to the amended claims for the following reasons.

To anticipate a claim, a cited prior art reference must either expressly or inherently teach each and every element of the claimed invention. See M.P.E.P. § 2131.01.

The claims are directed to a tissue section-containing carrier for the efficient culture of animal cells or plant cells, wherein the thickness of the tissue section of the present invention is not to exceed 50 µm. Support for this thickness can be found in the specification, for example, at page 21, lines 6-11 and exemplified in the examples (see for instance, Example 1 on page 24).

Mori fails to disclose or suggest this claimed element. Instead, Mori discloses the application of organotypic slice culture of neonatal mouse liver tissues to maintain the parenchymal cells. See Mori, page 319, Abstract. Mori also discloses an organization (derived from liver) which is cut into a thickness of 250 µm, and the purport which cultivates this slice. See the section titled “Preparation of liver tissue section” on page 320, wherein Mori discloses cutting the liver into 250 µm slices. Also, in the section titled “Preparation of liver tissue section”, it is disclosed that plasma processing (mounted in a plasma clot containing chicken plasma) is performed on the cover glasses as a pretreatment of cultivation.

The claimed invention differs from Mori in the thickness of the tissue section. Also, in the present invention, it is unnecessary to perform plasma processing as a pretreatment of cultivation as done in Mori. Also, for the claimed invention, the tissue section may perform acellularization processing and the cells can be efficiently cultivated by seeding arbitrary cells to the tissue section, as it is the carrier for the culture.

Accordingly, Mori fails to teach each and every element of the claimed invention. For this reason, Mori cannot anticipate the claimed invention.

In view of the above, the rejection of claim 1-13 under 35 U.S.C. §102(b) is untenable and should be withdrawn.

B. WO 99/12555

Claims 1-13 were also rejected under 35 U.S.C. § 102(b), as anticipated by Badylack et al., WO 99/12555. See pages 4-5 of the Office Action.

This rejection is respectfully traversed as applied to the amended claims for same reasons set forth immediately above and for the following reasons.

Similar to Mori, WO '555 also fails to disclose or suggest a tissue section-containing carrier for culture of animal cells or plant cells, wherein the tissue section is stuck to a support or stuck thereto while stretched and the thickness of the tissue section is not to exceed 50 µm.

WO '555 relates to a tissue graft composition comprising submucosal tissue that has been enzymatically treated with galactosidases. See Abstract. As such, the submucosal tissue is modified by galactosidase. In the present invention, it is unnecessary to enzymatically treat the tissue with galactosidases as disclosed in WO '555. Moreover, as noted above, the tissue section of the claimed invention may perform acellularization processing and the cells can be efficiently cultivated by seeding arbitrary cells to the tissue section, as it is the carrier for the culture.

Accordingly, WO '555 fails to teach each and every element of the claimed invention, and thus cannot anticipate the claimed invention.

In view of the above, the rejection of claim 1-13 under 35 U.S.C. §102(b) is untenable and should be withdrawn.

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CONCLUSION

In view of the foregoing amendments and remarks, the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

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